

REMARKS

The examiner rejected all of the claims with the exception of claims 11, 12, 15, 16, 18 and 26-29. The rejections are over a combination of Zhang in view of Webster and Sauer. Some of the claims were rejected in further view of Arai et al.

The Zhang patent discloses a firefighter's SCBA with either an infrared or visual camera. The image from the camera is fed to an external source wirelessly, or shown back to the user using a partial mirror that the user can also look through. Zhang simply discloses displaying to the user a view taken by a camera attached to the user's helmet. Zhang does not disclose displaying computer-generated graphics of any sort. Since the camera is coupled to the helmet (and thus is fixed relative to the user's head and thus the user's field of view), Zhang does not need a motion tracker to maintain the proper camera field of view. Also, since Zhang will not be displaying any computer-generated objects that correspond to real world objects (which would require tracking), Zhang has no use for tracking motion of the helmet. Indeed, motion tracking would be entirely superfluous in Zhang, because Zhang's camera is anchored to the helmet, and thus the camera's field of view is permanently mechanically coupled to the user's field of view.

Webster discloses a wide angle viewing system. Figure 13 discloses an embodiment with motion detectors coupled to the horizontal and vertical axes 114 and 116. Helmet 110 is attached to chair 112 by a frame that allows pivotal movement along axes 114 and 116.

On page 4, the Examiner states that Zhang discloses a head-mounted camera placed on the optical axis of the user's eyes. This is clearly incorrect. Camera 20, figure 1, and camera 20A, figure 2, are mounted well above the user's eyes and pointed away from the user. Zhang does not disclose any means for redirecting the viewing angle of the camera. Accordingly, it is

clear that Zhang does not disclose or suggest a video camera with a view point that coincides with the user's eye location, as in claim 21.

The Examiner states that it would have been obvious to use the motion tracker system of Webster in the device of Zhang because this will provide a one to one correspondence between the head movement and the field of view perceived by the eye. However, as described above, in Zhang the camera is mounted to the helmet, which sits on the user's head. Accordingly, the field of view of the camera is fixed relative to the user's eyes. Zhang, accordingly, could not use a motion tracker. Since the combination proposed by the Examiner is thus not suggested by the references, the combination is clearly improper under the law of 35 USC §103.

The Examiner also states that Sauer et al teaches a system with computer graphics rendered by the computer and shown to the user. The Examiner states that it would have been obvious to combine the computer graphics as taught by Sauer into the device of Zhang as modified by Webster because this will allow the user to see a real environment through a semi-transparent display that shows additional computer graphics.

However, Zhang does not disclose or suggest the display of computer graphics. Rather, Zhang displays a live image captured by the head-mounted camera. Sauer is a published patent application that was filed on September 17, 2001. The present application was filed on August 9, 2001. As the present application was filed before the filing date of the Sauer patent application, Sauer may not be used as a reference against the subject application. Further, there is clearly no suggestion on the face of the references to combine the three references to recreate the claimed invention. Zhang has nothing to do with the display of computer-generated graphics, making any combination of Sauer and Zhang improper. Additionally, Zhang has no use for a motion tracker of any sort. Accordingly, there is no motivation to combine Webster with Zhang.

The Examiner has selected disparate features from three unrelated references and used the inventors disclosure to combine those features in a manner that is not disclosed in or suggested by any of the references. This is a classic case of hind sight reconstruction which is clearly improper under 35 USC §103. On top of this, Sauer is not properly a reference. Accordingly, the proper references make no disclosure of the display of computer-generated graphics.

Accordingly, all of the claims are allowable. Early and favorable action is respectfully requested.

If for any reason this Response is found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution, please telephone the undersigned in Westborough, Massachusetts at (508) 898-1818.

Very Truly Yours,

A handwritten signature in black ink, appearing to read 'Brian M. Dingman', with a stylized flourish at the end.

Brian M. Dingman
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